

(12) **UK Patent Application** (19) **GB** (11) **2 222 571** (13) **A**

(43) Date of A publication 14.03.1990

(21) Application No 8819593.8

(22) Date of filing 17.08.1988

(71) Applicant
Kenrick & Jefferson Limited

(Incorporated in the United Kingdom)

**High Street, West Bromwich, West Midlands, B70 8NB,
United Kingdom**

(72) Inventor
Jeremy John Plimmer

(74) Agent and/or Address for Service
Marks & Clerk
**Alpha Tower, Suffolk Street Queensway, Birmingham,
B1 1TT, United Kingdom**

(51) INT CL⁴
G09F 3/02

(52) UK CL (Edition J)
B8F FBG F25 F26

(56) Documents cited
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(58) Field of search
UK CL (Edition J) B8F FBG
INT CL⁴ G09F

(54) **Security labels**

(57) A label comprises a first sheet 111 on which confidential information is depicted. A second sheet 110 covers such information and has a removable area which is separated from the remainder thereof by lines of perforation. The second sheet 111 is adhesively attached to the first sheet 110 and the removable area can be torn from its perforations to reveal the confidential information. The front of the second sheet may be coated with a self-imaging material so that any indicia impact printed on the first sheet will appear on the second sheet but will not be visible on the first sheet.

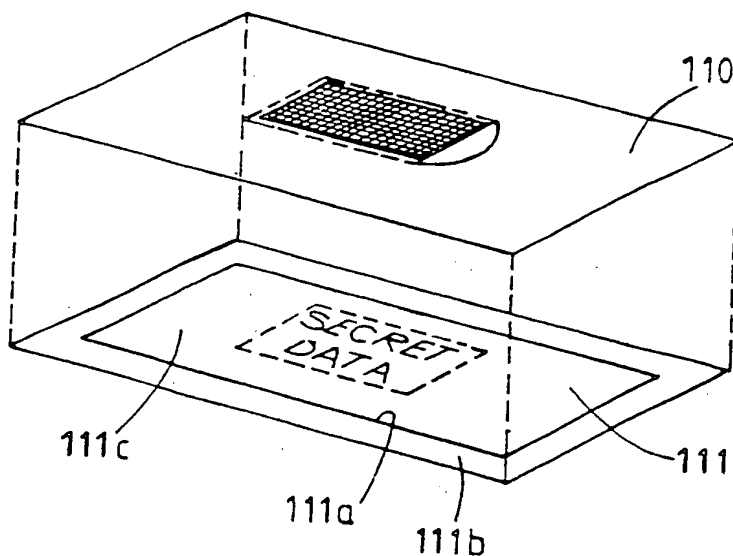


FIG.2.

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1982

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GB 2 222 571 A

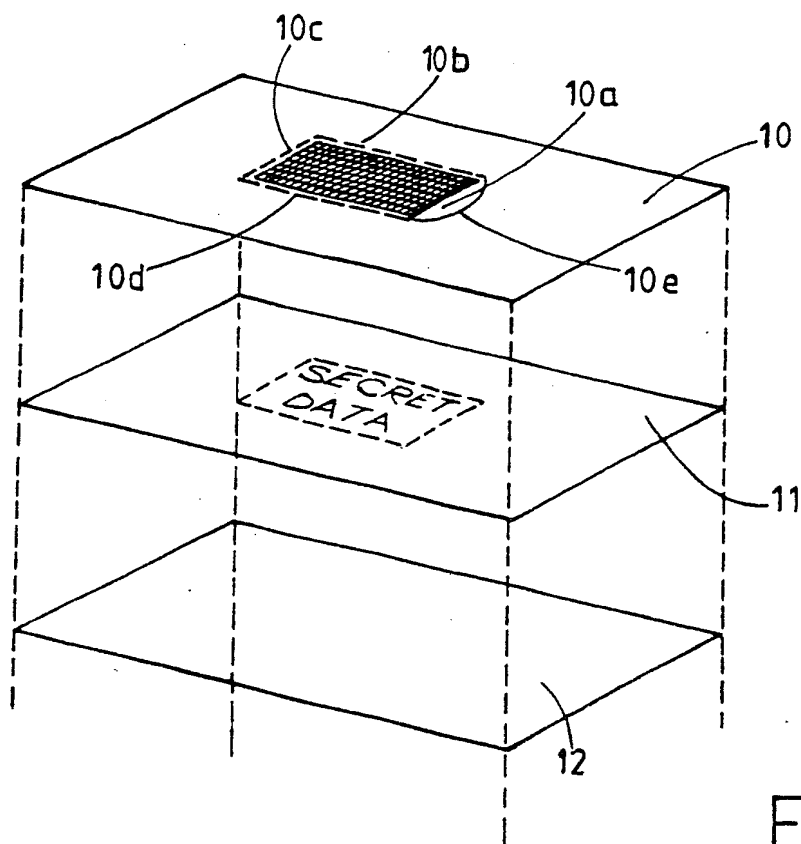


FIG. 1.

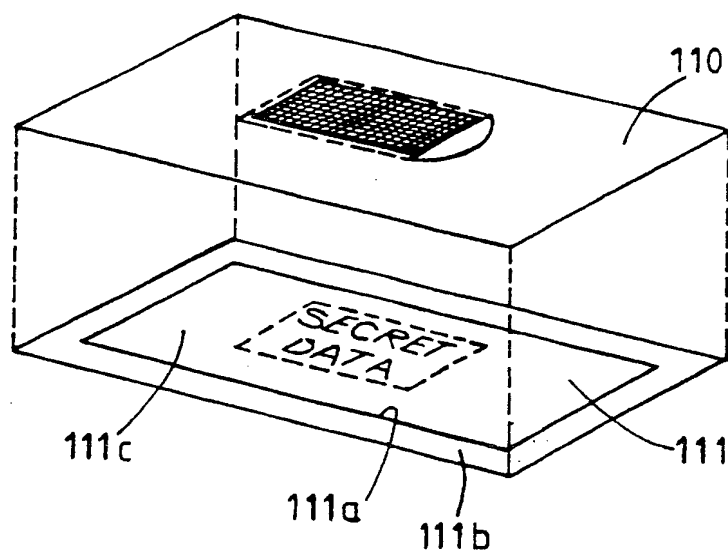


FIG. 2.

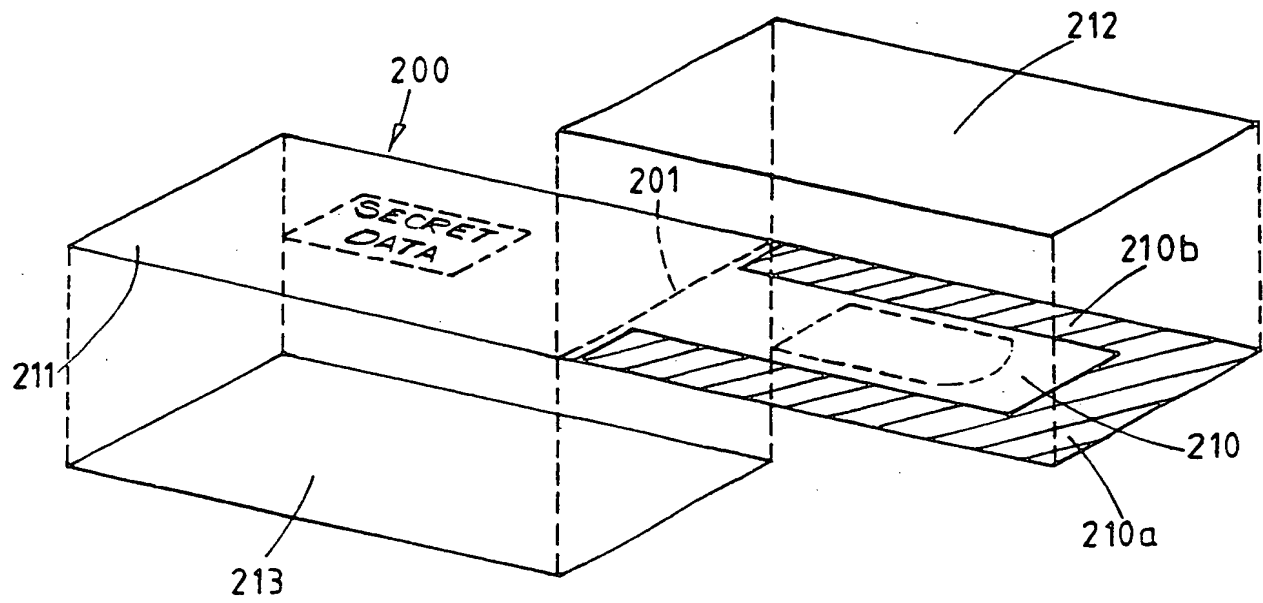


FIG. 3.

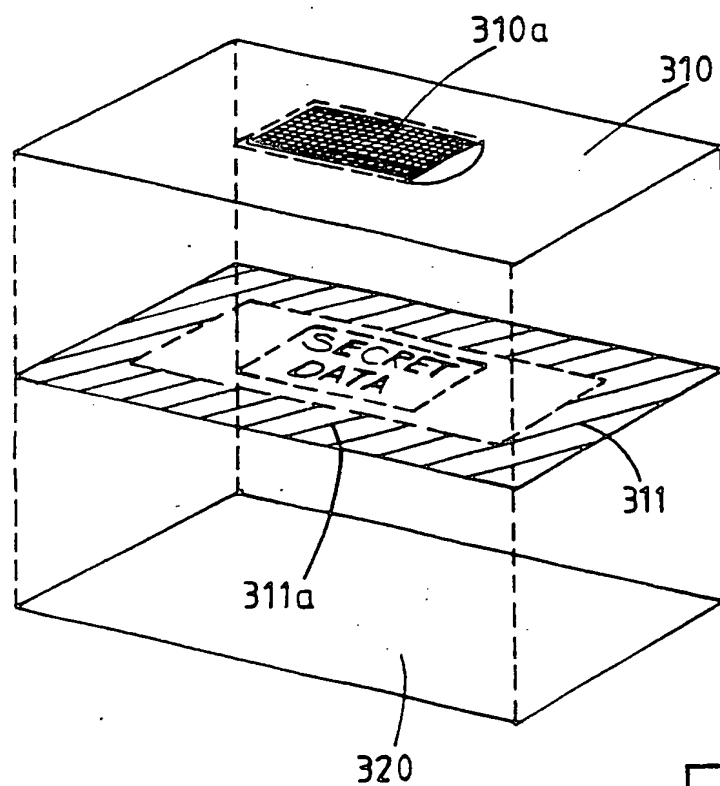


FIG. 4.

SECURITY LABELS

This invention relates to labels.

There is a requirement for a label which can be used to provide temporary security of some or all of the information depicted therein. There are circumstances, for example, when the final user of a product requires ready access to certain information concerning the product which can be passed from the supplier to the final user by application to the product (or its container) of a label on which the information is depicted. However the product may have to pass through the hands of one or more intermediaries from whom access to the information should be denied.

It is an object of the present invention to provide a label which fulfills this requirement.

Broadly, a label in accordance with the invention comprises first and second sheets attached together with the second sheet overlying the first sheet, said second sheet having an area removable from the remainder and connected to such remainder by lines of perforation, whereby confidential information depicted on the first sheet may be exposed by removing said area of said second sheet.

The use of the lines of perforation leave torn edges which are visible to the final user if an intermediary tears off said area of the second sheet and then replaces it.

In the accompanying drawings:

Figures 1 to 4 are exploded perspective views of four different examples of the invention.

In the example shown in Figure 1, the label comprises front and back sheets 10 and 11 both made of self-adhesive coated paper, with the self-adhesive side directed backwardly, i.e. in the direction from the front sheet towards the back sheet. The front of the back sheet 11 is coated with a release material, so that the front sheet can be peeled from it. It is also coated with a self-imaging material so that any indicia impact printed on the front sheet 10 also appear on the back sheet 11.

The front sheet 10 has a rectangular area 10^a which is connected to the surrounding remainder of the front sheet by coarse, tearable lines of perforation 10^b, 10^c, 10^d on three sides of the area. The fourth side of this rectangular area is bounded by an arcuate cut 10^e. Substantially the whole of the area 10^a is overprinted with hatching or a substantially continuous layer of ink.

The label originally includes a release sheet 12 behind the back sheet and the label may form part of continuous stationery assembly with the labels arranged one, two, three or more across the assembly.

The initial user prints the required data on the first sheet with an impact printer, preferably ensuring that no ribbon is in place in the printer for the printing of data on the area 10. All printed data is transferred to the backsheet 11. The data printed on the area 10 is not however visible. The printed label is attached to the surface of whatever article, container or package it is intended to be used on by removal of the release sheet 12 and application of the label to such surface.

When the final user receives the article he can reveal the "secret" data printed on the area 10^a, by removing

the latter, thereby exposing the underlying area of the back sheet 11.

If an intermediate handler of the article attempts to gain access to the secret data by wholly or partially removing area 10^a and then replacing it, this will be apparent to the final user as the ragged edges left by the coarse perforation lines will be clearly visible. Moreover the final user will be able to detect that the area 10^b has previously been removed, since it will be apparent that no tearing along the lines of weakening is taking place as the area 10^a is removed.

As an alternative to the above-mentioned arrangement in which back sheet 11 has its front surface coated overall with both release material and self-imaging material, either or both of these materials may be printed on the back sheet in the area underlying area 10^a only.

As a further alternative the front sheet 10 may be formed with transverse lines of weakening to prevent it being lifted whole from the release material. It would be difficult for anyone interfering with the label in this way to re-assemble the label properly.

Turning now to Figure 2, the label in this case comprises front and back sheets 110, 111. The front sheet 110 is exactly the same as front sheet 10 of Figure 1. The back sheet 111, however, is simply release paper which is coated on its front surface with self-imaging material. This back sheet is formed with a continuous die cut line 111^a completely surrounding the secret printing area of the back sheet (i.e. the area underlying area 110^a of the front sheet).

When using a label as shown in Figure 2, when the back sheet 111 is stripped from the front sheet after impact

printing of the data thereon, only the portion 111_b outside the line 111_a is stripped away, leaving the portion 111_c inside the line 111_a adhering to the back of the front sheet 110. The label is attached to the article or package by means of the exposed surrounding area of adhesive on the back of the front sheet, the portion 111_c of the back sheet being then totally enclosed.

With this arrangement it is preferable to utilise an adhesive such that its bond to the article and its bond to the paper of sheet 110 are stronger than the paper itself so that any attempt to remove the label to gain access to the secret data will cause readily detectable damage to the front sheet.

It will be understood that labels such as that shown in Figure 2 may be provided in multiples with the front sheets separated by die cut lines. In this case all the portions 111_b in a multiple assembly may be continuous.

The label shown in Figure 3 comprises a single piece of paper 200 which is divided by a pre-defined fold line 201 to define front and back sheets 210, 211. A printed U-shaped self-adhesive area 210_a is provided on the front sheet, with the limbs of the U containing the area 210_b which corresponds precisely to the area 10_a of Figure 1. The back sheet 211 is coated on its back face with printed on self-adhesive. There are two separate release sheets 212, 213 covering the two self-adhesive areas.

With this arrangement, the data is printed on the back sheet 211 directly and after the label has been separated from the continuous assembly it forms part of the release sheet 212 covering the U-shaped area 210_a

on the front sheet is removed and the label is folded in half. The release sheet 213 is then removed and the label is attached to the article, container or package.

The sheet 213 may be of the type which has a detachable self-adhesive film on it. Using such material is a very convenient way of selectively applying self-adhesive material to the back of the back sheet 210.

Finally, Figure 4 shows a label comprising front and back sheets 310 and 311. The front sheet 310 is like that of Figure 1, but is not self-adhesive backed. Instead it has pre-printed transfer material on the back of the area 310^a which otherwise corresponds precisely to the area 10^a of Figure 1.

The back sheet has a printed rectangular frame area of adhesive 311^a (which may conveniently be formed by rolling on continuous longitudinal adhesive lines and printing space transverse lines of adhesive). The sheet 311 has a self-adhesive back covered by a release web 320. During manufacture of the label assemblies, the adhesive area 311^a forms a permanent bond with the front sheet 310.

CLAIMS

1. A label comprising first and second sheets attached together with the second sheet overlying the first sheet, said second sheet having an area removable from the remainder and connected to such remainder by lines of perforation, whereby confidential information depicted on said first sheet may be exposed by removing said area of said second sheet.
2. A label as claimed in Claim 1 in which said removable area of said second sheet is printed with hatching or a substantially continuous layer of ink.
3. A label as claimed in Claim 1 or Claim 2 in which said second sheet is provided with a layer of self-adhesive material, said first sheet being peelable from said second sheet, manifolded material being provided on said first and/or second sheet to permit depiction of information on said first sheet.
4. A label as claimed in Claim 3 in which said first sheet is formed with a cut line so that a marginal portion of said first sheet can be removed to permit attachment of the label to another surface by adhesive on the second sheet exposed by removal of said marginal portion.
5. A label as claimed in Claim 4 in which said cut line follows a continuous closed path enclosing the area which is exposed by removal of the removable area of the second sheet.
6. A label as claimed in Claim 3 in which said first sheet is also provided with a layer of self-adhesive material for attaching the label to another surface.

7. A label as claimed in Claim 1 or Claim 2 in which said first and second sheets are integral parts of the same sheet, said second sheet being selectively coated with an adhesive to attach to said front sheet when the second sheet is folded in front of the first sheet.

8. A label as claimed in Claim 1 or Claim 2 in which said second sheet is provided on the back of said removable portion with manifolding material and said first sheet is attached to said second sheet by frame area of adhesive on the first sheet.

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